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ABSTRACT

This report describes the PASCAL database, a machine readable version of the French abstract journal Bulletin Signaletique, which allows use of the file for (1) batch and online retrieval of information, (2) selective dissemination of information, and (3) publishing of the 50 sections of Bulletin Signaletique. The system, which covers nine scientific domains worldwide, contains abstracts of documents appearing in serials, French doctoral and master theses, conference reports, technical reports, books, and patents filed in France. The report details record layout and online access, and appendices include examples of sample searches, subject coverage and correspondence between the different subfiles and the sections, formats, main language codes, and a list of lexicons and thesauri available from Informascience. (FM)

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* from the original document. *
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ED185974

REPORT TRITA-LD[illegible]4065 NOVEMBER 1979

U S DEPARTMENT OF HEALTH, EDUCATION & WELFARE
NATIONAL INSTITUTE OF EDUCATION

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PASCAL DATA BASE

File description and on line access on ESA/IRS

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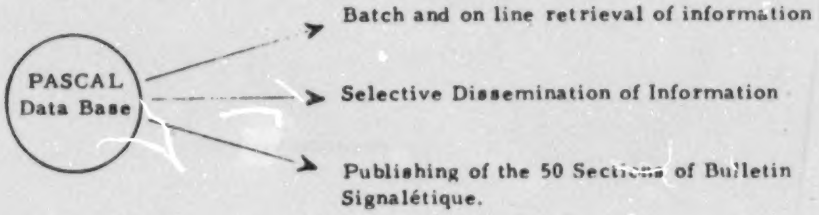
"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Stephan Schwarz

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

IR008219

The PASCAL (1) data base is issued by Informascience, the scientific and technical documentation centre of CNRS (2). It is the machine readable version of the well known French abstract journal Bulletin Signalétique. There have been three versions of PASCAL : PASCAL 1, PASCAL 2 and PASCAL 3 the first two were directed towards the elaboration of the 50 sections of the Bulletin Signalétique (one magnetic tape for each section) while the present version PASCAL 3 allows easy use of the file for different purposes :


PASCAL
Data Base
Batch and on line retrieval of information
Selective Dissemination of Information
Publishing of the 50 Sections of Bulletin Signalétique.

On the on line information system of IRS (3) the file is available from 1973 and is updated monthly, the total number of citations is about 3.000.000 and the average yearly growth is 500.000.

I - PRIMARY DOCUMENT SOURCES -

World-wide literature of all types is abstracted. The documents are drawn from serials (12500), French doctoral and master theses (5500/year), conference proceedings (1500/year), technical reports (2000/year, among them all the reports sponsored by DGRST (4) are abstracted), books (1000/year, mainly French and Russian books), patents filed in France due to a cooperation with INPI (5) (10.000/year).

The language and geographical breakdown of serials is

English	51%	Europe	62%
French	12%	North America	28%
German	8%	Asia	5,3%
Russian	12%	Latin America	4,7%
Others	11%	Africa, Oceania ...	

---

1) Programme Appliqué à la Sélection et à la Compilation Automatique de la Littérature (Program applied to automatic selection and compilation of literature).
2) Centre National de la Recherche Scientifique (National centre of scientific research).
3) Information Retrieval System, European Space Agency.
4) Délégation générale à Recherche Scientifique et Technique (General delegation for scientific and technical research).
5) Institut National de la Propriété Industrielle (French Patent Office).

II - COVERAGE -

Pascal is a multidisciplinary data base which handles all Exact and Life Sciences as well as Earth Sciences and Technology. Due to the large number of documents processed (500.000 each year) the file is organized in 10 subfiles also called "Documentary units". These subfiles may be fundamental scientific domains such as Physics, Chemistry, etc., or new domains such as Energy.

Subfile number	Name
1	Agricultural sciences
2	Earth sciences
3	Physics
4	Chemical physics
5	Life sciences
6	Chemistry
7	Energy
8	Engineering sciences
0	Metallurgy
9	Translations

Subfile 0 was created in January 1979, in earlier years it was merged with subfile 9.

Subfile 7 includes the Economy of energy file (section 731) prepared by the Human Sciences documentation centre of CNRS.

Subfile 9 was created in January 1978 and corresponds to the printed publication World Transindex, a joint publication of the International Translation Centre, the Commission of the European Communities and of CNRS, and it is not available in the PASCAL file on the IRS system.

In annex 1 the subject coverage and the corresponding sections of Bulletin Signalétique are given for each subfile.

The detailed classification scheme and subject coverage is given in the document "PASCAL Bulletin Signalétique, Plan de classement" available free on request. However this document corresponds exactly to the printed publication but not to the machine readable file which is more comprehensive: e.g. for section 380 from 1979 only the chapter 380.E on food products is printed, whereas the chapters agronomy, pesticides and aquaculture are only on the tapes (380.A 380.D). Certain codes (169, 179, etc.) are not included in the hardcopy classification scheme, but are used mainly for non periodical documents (reports, thesis, proceedings, etc.) which are difficult to classify precisely.

III - RECORD LAYOUT -

a record usually contains :

- Accession number
- Original title
- Translated title
- Author's names
- Author's affiliation
- Bibliographical description
- Classification code
- Descriptors
- Abstract

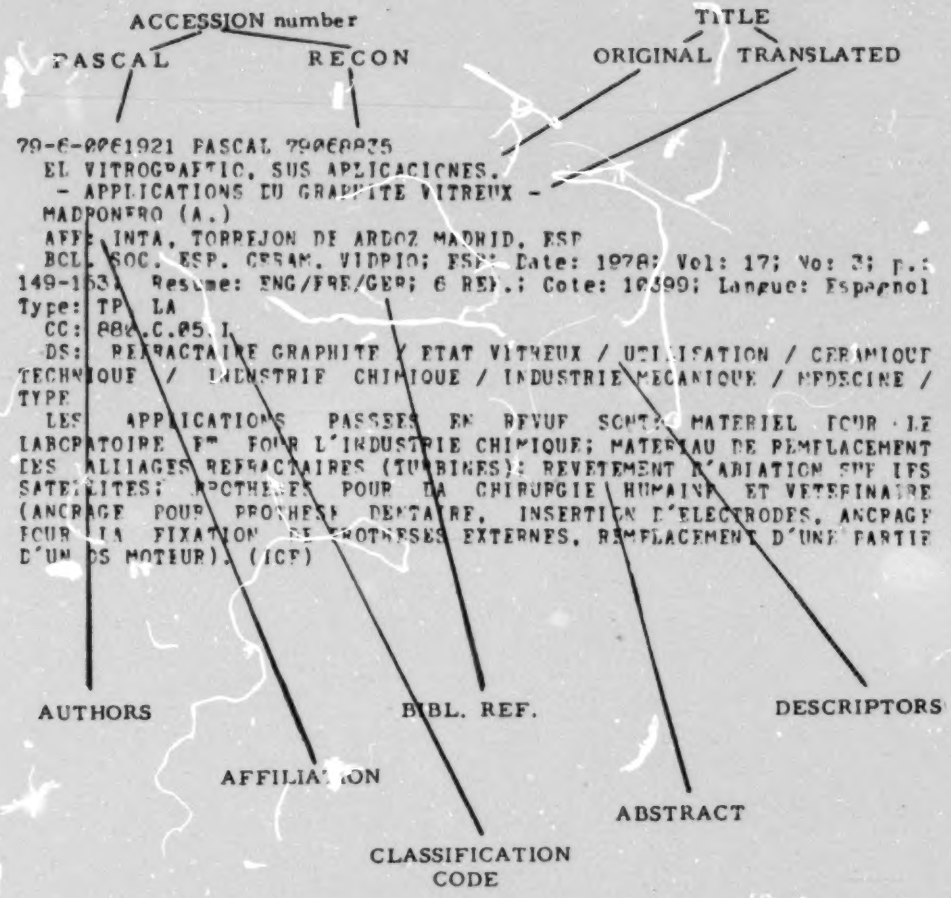

ACCESSION number
PASCAL
RECON
TITLE
ORIGINAL
TRANSLATED
79-6-0061921 PASCAL 7906835
EL VITROGRAFTIC, SUS APLICACIONES.
- APPLICATIONS DU GRAPHITE VITREUX -
MADRONERO (A.)
AFF: INTA, TORREJON DE ARDOZ MADRID, ESP
BCL: SOC. ESP. CERAM. VIDRIO; ESP; Date: 1978; Vol: 17; No: 3; p.: 149-153; Resume: ENG/FRE/GER; 6 REF.; Cote: 10399; Langue: Espagnol
Type: TP LA
CC: 88A.C.05.I
DS: REFRACTAIRE GRAPHITE / ETAT VITREUX / UTILISATION / CERAMIQUE TECHNIQUE / INDUSTRIE CHIMIQUE / INDUSTRIE MECANIQUE / MEDECINE / TYPE
LES APPLICATIONS PASSEES EN REVUE SONT: MATERIEL POUR LE LABORATOIRE F. POUR L'INDUSTRIE CHIMIQUE; MATERIAU DE REMPLACEMENT DES ALLIAGES REFRACTAIRES (TURBINES); REVETEMENT D'ABLATION SUR LES SATELLITES; PROTHESES POUR LA CHIRURGIE HUMAINE ET VETERINAIRE (ANCRAGE POUR PROTHESE DENTAIRE, INSERTION D'ELECTRODES, ANCRAGE POUR LA FIXATION DE PROTHESES EXTERNES, REMPLACEMENT D'UNE PARTIE D'UN OS MOTEUR). (ICP)
AUTHORS
AFFILIATION
BIBL. REF.
CLASSIFICATION CODE
ABSTRACT
DESCRIPTORS

Fig. 1 - Sample record from IRS

Accession number -

there are two possibilities :

PASCAL 2 or PASCAL 3 number.

1) PASCAL 2 number

It is the same number as in the printed publication Bulletin Signaletique

75 - 110 - 12345

75 ↑ year

110 ↑ section number of Bulletin Signalétique

12345 ↖ yearly sequential number

2) PASCAL 3 number

It is different from the number in the printed publication

76 - 3 - 1234567
↑ year ↑ subfile ↑ yearly sequential number

If a citation is duplicated in several subfiles, then the yearly sequential number will be the same :

78 - 7 - 0534867
78 - 8 - 0534867

Titles -

Original title is always given except for those in non roman script (before 1979 original title was only entered for european languages). There is usually a french translated title except for some english titles. For non roman script before 1979 there was the indication : En russe, En japonais, etc... From 1979 this indication is replaced by : Lang. followed by the three letter language code (see annex 3).

In certain subfiles an english translated title may appear, this is the case for the Energy file (from January 1976).

Author's names -

All authors are mentionned with their initials in parentheses and in the order of the source document :

DUPONT (J.)
DE VYNCK (Y. A.)

but when we cannot distinguish between name and forname, the full name is given : NGUYEN QUOC TIN

Author's affiliation -

Only the affiliation of the first author is given in an abbreviated form (Unisist rules).

Bibliographical description -

The cataloguing is done in accordance with the Unisist Reference manual. This assures compatibility of the information with that processed by other large documentation centres throughout the world.

All the useful data elements are included :
Source : serial or conference name..., country of origin, year of publishing, volume, number, page... .

When the document is located in CNRS the shelf number (COTE in french) is given, otherwise the name of the cooperating centre which supplied the abstract appears.

Classification Code -

A classification code is attributed to each citation, some may have several. For example a document dealing with pollution by oil refining plants can be found in the subfile number 7 Energy (section 730) and also in the subfile number 6 Chemistry (section 885).

The first three digits of each code give the number of the section concerned and classification codes always have this form:

SSS	.	R	.	NN . A . NN . A . N .
section number		chapter		Subcategory (N=Numeric, A=Alphabetic)

e.g. 110 . G . 03 . A

The detailed breakdown of codes is given in the "PASCAL Bulletin Signalétique, plan de classement". The classification scheme is up-dated each year and some subcategories may change. In 1975, the subfile Physics changed its classification scheme for the international scheme (same scheme as INSPEC). In 1976, paints, wood products, paper and leather products, were transferred from Section 880 to section 780. In 1979, a new section 364, joint publication by CNRS and INRA on Protozoa and Invertebrates, has been created bringing about a lot of changes in the Biology classification scheme (see IRS Manual, chapter on PASCAL or the corresponding classification schemes).

It is alway the most precise code which is attributed. No citation will have the code 730. A. 02. B but they will have one of the codes :

730. A. 02. B. 01
.....02
.....03
.....04
.....05

Descriptors :

They are always in French, in certain subfiles also in English (Information Science and from January 1977 for subfiles Energy and Earth sciences).

They describe all the important elements of the documents : procedures, apparatus, working conditions, properties, methods, materials, etc.

These descriptors are also used for establishing the monthly and yearly subject indexes in Bulletin Signalétique.

As a general rule they are in the singular. Except for very peculiar cases :

e.g. PHENOL is used for the compound
PHENOLS is used for the family

Composed descriptors usually contain no prepositions e.g. CHROMATOGRAPHIE PHASE GAZEUSE but in some cases due mainly to cooperation prepositions are present.

One can find :

METAL RENFORCE FIBRE
METAL RENFORCE PAR FIBRES

The descriptors are of four kinds :

- controlled descriptors

- identifiers
- candidate or future descriptors
- Free index terms

Each subfile has its own dictionary of controlled descriptors (lexicons). In certain specific fields, thesauri have been built in cooperation with specialists (Polymers, Computer science, Information science, Chemical engineering, etc.). See annex 4 for a complete list of these tools.

Identifiers are used for specific chemical compounds, stars names, minerals and so on. Candidate or future descriptors correspond to new concepts, they may be included at the end of the year in the dictionary of controlled descriptors.

For chemical compounds the full name following IUPAC (1) nomenclature is used. General descriptors are added for family names and chemical functions.

From January 1979 role indicators have been added to chemical compounds to avoid noise in certain cases.

e. g. Preparation of methanol

Searching METHANOL and PREPARATION retrieves all the documents concerning preparation of methanol but also a lot of documents dealing with synthesis of all kind of products from methanol or with methanol used as solvent.

There are presently four indicators ENT, FIN, ACT, SUB used experimentally in the subfile n° 6 of PASCAL (sections 170, 780, 880, 885)

ENT : used for primary materials
FIN : used for end products
ACT : used for active products
SUB : used for substrates, solvent, etc.

e. g :

$$\text{Cyclohexanone} + \text{Hydrogen} \xrightarrow[\text{Ethyle Ether}]{\text{Nickel}} \text{Cyclohexanol} + \text{water}$$

this reaction will be indexed with the following descriptors

CYCLOHEXANONE!ENT
HYDROGENE!ENT
CYCLOHEXANOL!FIN
NICKEL!ACT
ETHYLE ETHER!SUB

To obtain all about a precise compound e. g. BUTADIENE 1, 3 it is necessary to search BUTADIENE - 1, 3 (before 1979)
BUTADIENE - 1, 3!? (from 1979)
Otherwise documents with descriptors such as BUTADIENE-1, 3!ENT and so on will be missing.

Several role indicators may be attributed to the same compound
CYCLOHEXANONE!FIN!ENT (intermediary product)

The use of role indicators will be progressively extended to the whole file. some new ones may also be added.

---

(1) International Union of Pure and Applied Chemistry

In Earth Sciences, chemical symbols are used

e.g. GOETHITE is indexed GOETHITE
FER
OH

URANIUM is indexed U

In Metallurgy, alloys are described according to :

- their chemical composition .... FER 50-100(alloy containing more than 50% of Iron)
- their commercial names .... FER ARMCO
- their usual names .... LAITON (brass)
  BRONZE
- their uses .... ALLIAGE DENTAIRE (dental alloy)
  ACIER DE CONSTRUCTION (Building steel)
- their properties .... ALLIAGE REFRACTAIRE (refractory alloy)
  .... ACIER INOXYDABLE (stainless steel)

Abstract -

It is always in French, short and indicative, it describes the essential elements of the source document which are not in the title, sometimes there may be no abstract (usually when the title is long and sufficiently explicit).

Remarks -

- Subscripts and superscripts : In all chemical and mathematical formulas subscripts and superscripts are linearly transcribed.

  A^B is written A**(B)

  A_B is written A::(B)

  e.g. $12^\circ K$ 12**(C)K

  Fe_2O_3 Fe::(2)O::(3)

- Greek letters are expanded and followed by a blank :

  α is written ALPHAβ (1)

- Accents are suppressed, however some diacritics are transformed :

  Ä is written AE

  Ü is written UE

  Ö is written OE

This is very important to note for searches dealing with author's name or German words in free text search, where the two possibilities with or without E may occur.

---

(1) β = blank

IV - ON LINE ACCESS ON ESA/IRS (1)

PASCAL is available on this system as file 14. The commands ? FILE 14; ? FIELDS 14; ? NOTES 14; give general information about the file : coverage and access points.

The following fields have been inverted :

- Descriptors (controlled terms, identifiers, candidate descriptors and free terms)
- Titles words
- Authors
- Corporate sources, affiliations,
- Patentees
- Classification codes
- Language codes

A) - Free text inverted file

Among the previously cited fields, some can be searched without suffix or prefix in free text mode, they are the following :

Descriptors
Titles
Corporate sources, affiliations, patentees

Example : S HYDROGEN; S WASSERSTOFF; S FRANCE;

HYDROGEN, WASSERSTOFF and FRANCE are searched in descriptors, titles and corporate sources.

It is possible to specify fields with suffixes (see fig. 2)

FIELD	SUFFIX	EXAMPLE
TITLES	/TI	S PIPELINE/TI
FRENCH TITLES	/FT	S PHENOL/FT
ENGLISH TITLES	/ET	S CREEP/ET
GERMAN TITLES	/GT	S UMWELTSCHUTZ/GT
OTHER TITLES	/OT	S BIOCERAMICI/OT
DESCRIPTORS	/CT	S HYDROGENE/CT
CORPORATE SOURCES	/CS	S INRA/CS

Fig. 2 - Fields searchable with a suffix.

The field CT contains all kinds of descriptors : controlled descriptors, identifiers, candidate descriptors and free terms. It contains french and english descriptors when both are present (see p. 5). This field can be searched either by simple terms or phrases, the descriptor phrases have also been broken down into uniterms.

Generally it is not necessary to specify the field. However in certain cases it may be very useful to avoid noise.

- homonyms or homographs : PAIN in English and PAIN (bread) in French.
- geographical or general terms : FRANCE, IRAN, EAU, etc.

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(1) European Space Agency/Information Retrieval System.

Example : SEISM in IRAN if no field is indicated for IRAN, documents about seisms in IRAN and documents about seims published by iranian authors are retrieved, so the best solution would be to search :

SSEISM ?(1), SIRAN/TI, CT(2)

C1 AND 2

B) Inverted file with prefixes

To search Authors, Classification codes, Language codes, it is compulsory to use a prefix (see fig. 3)

Fields	Prefixes	Examples
Authors	AU=	EAU=DUPONT SAU=FUNK (J. E.) SAU=FUNK (J?
Classification code	CC=	SCC=740 ? Whole section 740 SCC=730 78 Year 1978 of section 730 SCC=110. A ? Chapter A of section 110 SCC=730. B. 03. B. 06 ? Subcategory of section 730
Language code	LA=	SLA=05 Spanish documents

Fig. 3 - Fields searchable with a prefix.

See in annex 3 the list of language codes and always use numeric codes to search, alphabetic codes appears on display to indicate languages of different abstracts of an original article for example (see fig. 1).

For oftenly used languages (English, French, German, Russian, etc.) it is better to use syntactic logic (see further), otherwise a disk storage overflow will be rapidly obtained.

To obtain the document published in a certain chapter and during a certain year it is necessary to proceed in two steps.

Example : documents concerning AIR POLLUTION in 1977

1 SCC=885. C?
2 SCC=885 77
C 1 AND 2

or

1 SCC=885. C?
2 L1/77 (see p 10 the use of the limit command)

C) TRUNCATION, MASKS, SYNTACTIC OPERATORS -

Truncation : Only right truncation is allowed

S HYDROGEN?	retrieves	HYDROGEN HYDROGENE HYDROGENATION HYDROGENE CHLORURE (descriptor) etc.

Masks : one or several caracters can be hidden

S OX?DE	retrieves	OXYDE OXIDE
S MOTOR? ?	retrieves	MOTOR MOTORS but not MOTORIZATION
S PHENOL? ?	retrieves	PHENOL PHENOLS but not PHENOLISATION (French word)

Syntactic Operators -

The syntactic operator C, F, W can be used (see RECON manual for detailed explanation)

• S DAM(C)ZAIRE

DAM and ZAIRE must be in the same citation, it is equivalent to the boolean operator AND

- S UNDERGROUND(F)STORAGE

  UNDERGROUND and STORAGE must be in the same field

- S FUEL(W)CELLS

  FUEL and CELLS must be consecutive words and in the same field

- If several operators are used, they must always be written in the following order W then F then C

  S SURFACE(2W)TEMPERATURE(F)STEEL

- They can be used to search chemical formulas in the titles

  e.g. Fe_2O_3 S FE(W)2(W)O(W)3

Truncation is not allowed, so one must search all spelling as well as both singular and plural forms

It is possible to use suffix and prefix

S SEISM(F)IRAN/ET
S SOLAR ENERGY(C)LA=01

Solar energy is a controlled descriptor (in Energy from 1977 controlled descriptors are both in English and French), 01 is the code for French.

D) SEARCHING PATENTS -

The first title word of a patent is EREVET, so it is very easy to sort this kind of document

Examples -

1) patents filed by CITROEN

SCITROEN;SBREVET
C 1 AND 2

2) patents about Storage of hydrogen

SBREVET; SHYDROGEN? ?; SSTOCKAGE
C 1 AND 2 AND 3

E) LIMIT COMMAND -

- Limiting a set to a year or a period

  L3/78 Limiting set n°3 to year 1978
  L5/73-75 Limiting set n°5 to period 1973-1975

- Limiting a set to domains

  L1/B Limiting set n°1 to Biology (subfile 1 and 5, sections 310 to 390, except 370 and 380 that have been placed in P for 1977 and 1978 by error)

  L3/P Limiting set n°3 to non Biology (subfile 2, 3, 4, 6, 7, 8, 0 sections 101 to 227 and 730 to 890)

- Limiting a set by years and by domain

  L10/78/B Limiting set n°10 to year 1978 and Biology

- Limiting a set to certain fields

  L3/CS Limiting set n°3 to affiliations (valid for all suffixes except TI and CT)

- This enables to solve homonyms and homographs problems between different domains.

PLASMA in Physics or in Biology

- For methods, apparatus or equipments used in many domains, it may be interesting to be able to limit or to eliminate a certain domain

  - gas phase chromatography
  - X rays etc...

It is also possible to limit a whole search

LALL/76-78 LALL/B

Limiting is automatically cancelled by a new limit command or by the command LALL

F) FORMATS -

Formats	Fields	Examples
1	Recon number	T3/1/1-20
2	Citation without abstract	T5/2
3	Title + descriptors	T7/3
4	Complete citation	T10/4/1-3
5	Title + bibliographic reference	T5/5
6	Title	T8/6

In order to obtain French descriptors used by CNRS indexers you may search in a first step by free text in your preferred language and display citations in format 3.

To control quickly the search strategy format 6 is the best one.

To print on line several items format 5 is very useful.

To print offline, use format 4, which gives complete citation with abstract

See in annex 2 examples using different formats.

G) "ONLINE" ORDERING OF ORIGINAL DOCUMENTS -

For the PASCAL data base it is possible to order directly the original document corresponding to a PASCAL citation either in hardcopy or in microform using respectively formats H or M

Pr 5/H

Hardcopy of the third citation of set 5

Pr 99/M/1-10

Microform of citation 1 to 10 of set 99

Pr 781234567/H

Hardcopy of the PASCAL citation having the RECON number 781234567

This can be done immediately during a search or after receiving offline printing by using RECON numbers. Payment for ordered documents is made with CNRS coupons that are available from INFORMASCIENCE.

Remark : The pagination of a document is always indicated after p. : . On the second reference given below 2 P corresponds to the bibliography and not to the number of pages which is 18 (p. : 291 - 309).

BIOSCIENCE; USA; Date: 1978; Vol: 28; No: 6; p.: 376-382; 47 REF.;
Cote: 10980; Langue: Anglais TYPE: TP, LA

Pagination Bibliography

OECOLOGIA; DEU; Date: 1978; Vol: 33; No: 3; p.: 291-309; 2 P.;
Cote: 35688; Langue: Anglais TYPE: TP, LA

EXAMPLES OF SIMPLE SEARCHES

1 - USER EDUCATION IN INFORMATION SCIENCE AND ESPECIALLY TRAINING TO ONLINE SYSTEMS

Information science is a very general concept, the best way for searching it, is to use the section code 101. In this domain french and english descriptors have always been used, so the search can be done in english.

```
SET ITEMS DESCRIPTION
  1 22683 CC=101 ?
  2  3031 TRAINING
  3  3254 EDUCATION
  4   115 ON LINE
  5 63164 INTERACTI?
                    C1*(2+3)*4
          6      5
                    C1*(2+3)*(4+5)
          7     35
                    T7/4
```

```
79-3-P295394 PASCAL 79233755
  AN ONLINE COMPONENT IN AN INTERDISCIPLINARY COURSE ON INFORMATION
RESOURCES FOR SCIENCE AND ENGINEERING STUDENTS
  ANTONY (A.); SIVERS (R.); WEISER (V.); HODINA (A.)
  AFF: UNIV. CALIFORNIA SCI.-ENG. LIBRARY, SANTA BARBARA CA 93106,
USA
  ONLINE REV.; GBR; Date: 1979; Vol: 3; No: 4; p.: 337-344; 17 REF.;
 Cote: 17092; Langue: Anglais Type: TP, LA
  CC: 101.A.01.G
  DS: UTILISATEUR / FORMATION UTILISATEUR / RECHERCHE DOCUMENTAIRE /
ACCES DIRECT / REACTION UTILISATEUR / ROYAUME UNI / USER / USER
TRAINING / DOCUMENT RETRIEVAL / ON LINE*/ USER REACTION / UNITED
KINGDOM
  DANS LE CADRE D'UN PROGRAMME DE FORMATION EN DOCUMENTATION, LES
ETUDIANTS ONT EU A EFFECTUER UNE RECHERCHE DOCUMENTAIRE EN ACCES
DIRECT SUR LE SUJET DE LEUR CHOIX. LE COMPORTEMENT ET LES REACTIONS
DES ETUDIANTS SONT DISCUTES ET LES PROBLEMES RENCONTRES SONT
DECRITS. ON MONTRE LA PERTINENCE DE CE TYPE D'EXERCICE POUR LA
FORMATION DES UTILISATEURS
```

II - MEASURE OF THE SURFACE TEMPERATURE OF METALS

* Metallurgy is dealt with in section 740, using this code avoids searching all metals

* Surface temperature is searched using conceptual logic

TEMPERATURE(2W)SURFACE	retrieves	Temperature of surface - - - of the - - - - on the -	(english titles)
		Temperature surface	(descriptors)
		Temperature de -	(descriptors or titles)
		Temperature de la surface - - à la - - - sur la -	(french titles)
SURFACE(W)TEMPERATURE	retrieves	Surface temperature	(english titles

* The concept "MESURE" is searched MEASURE (english titles)
MESURE (french titles, descriptors)

```
SET ITEMS DESCRIPTION
    1111389 CC=740 ?
  2   492 TEMPERATURE(2W)SURFACE
  3   334 SURFACE(W)TEMPERATURE
  4 60038 MESURE
  5  1468 MEASURE
  6     22 1*(2+3)*(4+5)
           T6/4
```

79-8-0032998 PASCAL 79048869
DIRECT SURFACE TEMPERATURE MEASUREMENT BY INFRARED RADIATION IN ELASTOHYDRODYNAMIC CONTACTS AND THE CORRELATION WITH THE BLOCK FLASH TEMPERATURE THEORY.
NAGARAJ (H. S.); SANBORN (D. M.); WINER (W. O.)
AFF: GEORGIA INST. TECHNOL., ATLANTA GA 30332, USA
WEAR; NLD; Date: 1978; Vol: 49; No: 1; p.: 43-59; 17 REF.; Cote: 8579; Langue: Anglais Type: TP, L/
CC: 890.A.07.B.03
DS: LUBRIFICATION / LUBRIFICATION ELASTOHYDRODYNAMIQUE / CONTACT MECANIQUE / MESURE / TEMPERATURE / RAYONNEMENT IR / CONTACT ROULANT / CONTACT GLISSANT / ACIER / ALUMINE / FILM LUBRIFIANT / RUPTURE / TEMPERATURE SURFACE / CONTACT SPHERE PLAN
UTILISATION D'UN MICRODETECTEUR INFRAROUGE POUR LA MESURE DES TEMPERATURES SUPERFICIELLES DANS LES CONTACTS ELASTOHYDRODYNAMIQUES, POUR DES PRESSIONS DE HERTZ ALLANT JUSQU'A 2 GPA, DES VITESSES DE GLISSEMENT ALLANT JUSQU'A 6,0 MS**(-1), ET DES VITESSES DE ROULEMENT ALLANT JUSQU'A 1,25 M.S**(-1), AVEC DES RAPPORTS GLISSEMENT/ROULEMENT COMPRIS ENTRE -2 ET +2. UTILISATION DE DIVERSES RUGOSITES DE SURFACE. ANALYSE DES DONNEES METTANT EN EVIDENCE UNE BONNE CORRELATION AVEC LA THEORIE DE BLOCK DE LA TEMPERATURE DE FLASH.

III - SEA PIPELAYING

The simplest and quickest way consists to search with english terms and display several citations to find the french descriptors, e.g. SEA and PIPELAY ?

```
SET ITEMS DESCRIPTION
  1    47 PIPELAY?
  2  8422 SEA
  3     6 1*2
          T3/3

78-7-0303297 PASCAL 78390981
  PAT PIPELAYING METHOD PASSES TEST IN NORTH SEA.
  CC: 730.B.02.F.02.C
  DS: TRANSPORT / PIPELINE / PIPELINE SUBAQUATIQUE / POSE PIPELINE /
METHODOLOGIE / BARGE POSE / SOUDURE / TECHNOLOGIE / MER DU NORD /
TRANSPORTATION / PIPELINE / UNDERWATER PIPELINE / PIPELINE LAYING /
METHODOLOGY / LAY BARGE / WELD / TECHNOLOGY / NORTH SEA / PAT
```

Note that in the energy domain english descriptors have been added but since 1977 only.

```
4   605 PIPELINE SUBAQUATIQUE
5  1462 POSE
          C4*5

6   242 4*5
          T6/4

        TYPE 6/4/1
79-7-0219393 PASCAL 79250321
  NEW TECHNOLOGY USED TO LAY NORTH SEA LINES
  METZLER (J. A.)
  PIPE LINE INDUSTRY; USA; Date: 1978; Vol: 49; No: 5; p.: 111-112;
Cote: 15235; Langue: Anglais Type: TF, LA
  CC: 730.B.02.F.02.C
  DS: TRANSPORT / PIPELINE / PIPELINE SUBAQUATIQUE / POSE PIPELINE /
TECHNOLOGIE / MER DU NORD / EXPLOSIF / TRANSPORTATION / PIPELINE /
UNDERWATER PIPELINE / PIPELINE LAYING / TECHNOLOGY / NORTH SEA /
EXPLOSIVE / VEHICULE COUSSIN AIR
  LE GROUPE BOS KALIS WESTMINSTER A UTILISE UN VEHICULE SUR COUSSIN
D'AIR (ACV) SE DEPLACANT SUR L'EAU OU SUR TERRE POUR OUVRIR UNE
TRANCHEE PAR EXPLOSIF EN EAU PEU PROFONDE. LE GROUPE "LAND AND
MARINE ENGINEERING LTD." A, DE SON COTE, UTILISE UNE TRANCHEUSE AUX
PERFORMANCES DE JET AMELIOREES. (IFP)
```

IV - PHOTOOXYDATION OF INDOL DERIVATIVES

- First step to find the french descriptors search :

```
1 SINDOL?
2 SPHOTOXYDATION
3 SPHOTOOXYDATION?

C1 * (2+3)
```

- Then display one citation, you will find that the concept photooxydation must be search within the field of descriptors or titles by

OXYDATION? AND (PHOTOCHIM? OR PHOTOLYSE OR 170.A.14.B?)
within the titles by
PHOTOOXYDATION OR PHOTOXYDATION

- The concept indol derivatives must be search

INDOL? OR TRYPTOPHAN? (trivial name)

```
SET ITEMS DESCRIPTION
  1  4646 INDOL?
  2    14 PHOTOXYDATION?
  3   377 PHOTOOXYDATION?
  4     2 1*(2+3)
                    T4/3

76-170-22832 PASCAL 76468551
  FORMATION D'IONS IMMONIUM EN SERIE INDOLIQUE PAR PHOTOXYDATION:
HEMISYNTHESE DE LA CRASPIDOSPERMINE ET DE LA CRIOCERINE
  CC: 170.A.14.B.02.A
  DS: OXYDATION / REACTION PHOTOCHIMIQUE / METHANOL / ACETONE /
SOLUTION ORGANIQUE / HETEROCYCLE AZOTE ANCULAIRE / VINCAMINE /
ALCALOIDE / INDOLE DERIVE / VINCAMONE / VINCAMINE(METHOXY-11) /
VINCAMINE DERIVE / MECANISME REACTION / PHOTOLYSE / CRASPIDOSPERMINE
 / CRIOCERINE / PREPARATION / (METHOXY-11)


  5  8518 CC=170.A.14.B?
  6 10520 PHOTOCHIM?
  7  7651 PHOTOLY?
  8 16103 5+6+7
  9 22499 OXYDATION?
 10  1141 8*9
 11  1450 10+2+3
 12    17 11*1
 13  3042 TRYPTOPHAN?
 14    56 11*(1+13)
```

- The search can be limited to bicyclic compounds.

In PASCAL data base descriptors describing substructure are used

e.g. compose bicyclique

```
15 15436 BICYCLI?
16    44 12*15+13*11
                 T16/4
```

78-E-034080E PASCAL 78433197
FOTOOXIDACION SELECTIVA DE METIONINA, TIROSINA Y TRIPTOFANO UTILIZANDO TIONINA Y AZUL DE TOLUIDINA COMO FOTOSENSIBILIZADORES.
- PHOTOOXYDATION SELECTIVE DE LA METHIONINE, LA TYROSINE ET LE TRYPTOPHANNE PAR PHOTOSENSIBILISATION A LA THIONINE ET AU BLEU DE TOLUIDINE -
IBORRA (J. L.); LLORCA (F. I.); PASTOR (P. F.); GARCIA (J. V.)
AFF: DEP. BIOQUIM., FAC. CIENC., UNIV. VALENCIA, ALICANTE
REV. ESP. FISIOL.; ESP.; Date: 1977; Vol: 33; No: 4; p.: 297-303; Resume: ANGL.; 20 REF.; Cote: 3161; Langue: Allemand Type: TF, LA
CC: 170.A.14.B.02.A
DS: REACTION PHOTOCHIMIQUE / HETEROCYCLE AZOTE / COMPOSE BICYCLIQUE / COMPOSE BENZENIQUE / COMPOSE ALIPHATIQUE / OXYDATION / AMINOACIDE / METHIONINE / TYROSINE / TRYPTOPHANNE / BLEU TOLUIDINE / VIOLET IAUTH / BLEU METHYLENE
ON ETABLIT LA MEILLEURE EFFICACITE DES COLORANTS DE LA FAMILLE DES THIAZINES, VIS-A-VIS DU BLEU DE METHYLENE DANS LA PHOTOOXYDATION DE LA METHIONINE, TYROSINE ET DU TRYPTOPHANNE.

V - PEPTIC ULCER DRUGS

The french descriptors are found by searching PEPTIC(W)ULCER and displaying the first citation

```
                SPEPTIC(W)ULCER
          1    214
                S 1/3/1

78-5-0427198 BIOPASCAL 78343754
  PEPTIC ULCER IN UREMIC CHILDREN.
  CC: 355.A.01.B; 354.A.03.A
  DS:  INSUFFISANCE  RENALE  / CHRONIQUE / ULCERE / GASTRODUODEN
AL /
ENFANT  /  HEMODIALYSE PERIODIQUE / COMPLICATION / HOMME / EPURATION
EXTRARENALE

                SULCERE;SGASTRODUODENAL;
          2   4997
          3   1380 GASTRODUODENAL
          4   1280  2* 3
                SDRUG;SCHIMIOTHERAP?
          5   7190
          6  50220 CHIMIOTHERAP?
                C 4*( 5+ 6)
          7    129
                T 7

78-5-0387624 BIOPASCAL 78349182
  LA CIMETIDINE EN PATHOLOGIE GASTRO-DUODENALE.
  FIASSE (R.)
  AFF: CLIN. UNIV. ST. LUC, B-1200, BRUXELLES
  LOUVAIN  MED.;  BELG.;  Date:  1978;  Vol: 97; No: 4; p.: 209-219;
Resume: ANGL.; 39 REF.; Cote: 15919; langue: Francais Type: TP, LA
  CC: 330.A.02.F
  DS:  ANTIHISTAMINIQUE / CHIMIOTHERAPIE / ULCERE / GASTRODUODENAL /
HOMME  /  EFFET  SECONDAIRE  /  INDICATION  /  TRAITEMENT / APPAREIL
DIGESTIF PATHOLOGIE / CIMETIDINE
```

VI - DRUG ADDICTION

Searching DRUG(W)ADDICTION enable to find the descriptor TOXICOMANIE Expanding this term shows that truncation is necessary. If only psychological aspects are needed, the search must be limited to section 390, if it is only the toxic aspects then it has to be limited to Chapter 330. B (toxicology).

```
          1     56 DRUG(W)ADDICTION
                   T 1

78-5-030E970 BIOPASCAL 782E5088
  MMPI CORRELATES OF DRUG ADDICTION BASED ON DRUG OF CHOICE.
  TREVITHICK (L.); HOSCH (H. M.)
  AFF: UNIV. TEXAS, EL PASO
  J. CONSULTG CLIN. PSYCHOL.; U.S.A.; Date: 1978; Vol: 46; No: 1;
p.: 180; 2 REF.; Cote: 2283; Langue: 02 Type: TP, LA
  CC: 390.B.02.B.02
  DS: TOXICOMANIE / PERSONNALITE / MINNESOTA MULTIPHASIC PERSONALITY
INVENTORY / TEST PERSONNALITE / VALIDATION TEST / PSYCHOMETRIE /
DESEQUILIBRE PSYCHIQUE / HOMME
                   ETOXICOMANIE

       EXPAND TOXICOMANIE
REF  INDEX-TERM              TYPE ITEMS RT
E1   TOXICOMANES-------------    230
E2   TOXICOMANIA-------------      3
E3   TOXICOMANIAQUE----------     12
E4   TOXICOMANIAQUES---------      2
E5   TOXICOMANIAS------------      4
E6  -TOXICOMANIE-------------   3324
E7   TOXICOMANIES------------    123
E8   TOXICOMANOGENES---------      4
E9   TOXICON-----------------      2

                   STOXICOMAN?
       2  3372
                   SCC=330.B?          (chapter dealing with toxicology)
       3  34154
                   C2AND3
       4  1112


                   T 4

79-5-0031974 BIOPASCAL 79038668
  THE EFFECTS OF METHADONE MAINTENANCE WITH OPIOID TAKERS. A REVIEW
AND SOME FINDINGS FROM ONE BRITISH CITY.
  PAXTON (R.); MULLIN (P.); BEATTIE (J.)
  AFF: SOUTH GEN. HOSP., GLASGOW G51 4TF
  BRIT. J. PSYCHIATRY; GBR; Date: 1978; Vol: 132; p.: 473-481; 36
...; Cote: 3999; Langue: Anglais Type: TP, LA
  CC: 330.B.05.C
  DS: DROGUE / TOXICOMANIE / HOMME / CHIMIOTHERAPIE / LONG TERME /
TRAITEMENT / METHADONE / OPIACE
  IL SEMBLE EN CONCLUSION QUE LE ROLE THERAPEUTIQUE DE LA METHADONE
A ETE EXAGERE.
```

Annex 1

Subject coverage and Correspondance between the different subfiles and the sections

SUBFILE (DOCUMENTARY UNIT)	SUBJECT COVERAGE	BULLETIN SIGNALETIQUE Sections
1 AGRICULTURE	BOTANICS. AGRONOMY ZOOTECHNY. FOOD INDUSTRIES	370, 380
2 EARTH SCIENCES	MINERALOGY. GEOLOGY	220 to 227
3 PHYSICS	INFORMATION SCIENCES. COMPUTER SCIENCES. PHYSICS. ELECTRICITY. ELECTRONICS. MECHANICS. ASTRONOMY. GEOPHYSICS.	101 to 160 + 165 B
4 CHEMICAL PHYSICS	CONDENSED MATTER STRUCTURE. CRISTALLOGRAPHY. ATOMIC AND MOLECULAR PHYSICS.	161, 165 A
5 LIFE SCIENCES	BIOLOGY. MEDICINE.	310 to 365 + 390
6 CHEMISTRY	PURE AND APPLIED CHEMISTRY POLYMERS, POLLUTION. WASTES. NOISE.	170, 780 880, 885
7 ENERGY	FUELS. ENERGY.	730, 731
8 ENGINEERING SCIENCES 1973 - 1978	METALLURGY. MECHANICAL ENGINEERING. BUILDING AND CIVIL ENGINEERING. TRANSPORTATION.	740, 745 890
8 From 1979	SAME AS FROM 1973 TO 1978 WITHOUT METALLURGY	890
0 From 1979	METALLURGY	740, 745

Annex 2

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FORMATS

Format 1 : Accession number

78326733 78267817

Format 2 : Citation without abstract

78-7-0269652 PASCAL 78326733
PHOTOVOLTAIC, GRAVITATIONALLY STABILIZED, SOLID-STATE SATELLITE SOLAR POWER STATION.
CANTAFIO (L. J.); CHOBOTOV (V. A.); WOLFE (M. G.)
AFF: AEROSPACE CORP., EL SEGUNDO, CALIF.
J. ENERGY; U.S.A.; Date: 1977; Vol: 1; No: 6; p.: 352-363; 32 REF.
; Cote: 17419; Langue: Anglais Type: TP, LA
CC: 730.C.02
DS: ENERGIE SOLAIRE / INSTALLATION / CENTRALE SOLAIRE / CENTRALE ORBITALE / CONCEPTION / ETATS UNIS / FILIERE PHOTOVOLTAIQUE / SOLAR ENERGY / INSTALLATION / SOLAR POWER PLANT / ORBITING POWER STATION / DESIGN / UNITED STATES

Format 3 : Title + descriptors + classification code

78-7-0269652 PASCAL 78326733
PHOTOVOLTAIC, GRAVITATIONALLY STABILIZED, SOLID-STATE SATELLITE SOLAR POWER STATION.
CC: 730.C.02
DS: ENERGIE SOLAIRE / INSTALLATION / CENTRALE SOLAIRE / CENTRALE ORBITALE / CONCEPTION / ETATS UNIS / FILIERE PHOTOVOLTAIQUE / SOLAR ENERGY / INSTALLATION / SOLAR POWER PLANT / ORBITING POWER STATION / DESIGN / UNITED STATES

Format 4 : Complete citation

78-7-0269652 PASCAL 78326733
PHOTOVOLTAIC, GRAVITATIONALLY STABILIZED, SOLID-STATE SATELLITE SOLAR POWER STATION.
CANTAFIO (L. J.); CHOBOTOV (V. A.); WOLFE (M. G.)
AFF: AEROSPACE CORP., EL SEGUNDO, CALIF.
J. ENERGY; U.S.A.; Date: 1977; Vol: 1; No: 6; p.: 352-363; 32 REF.
; Cote: 17419; Langue: Anglais Type: TP, LA
CC: 730.C.02
DS: ENERGIE SOLAIRE / INSTALLATION / CENTRALE SOLAIRE / CENTRALE ORBITALE / CONCEPTION / ETATS UNIS / FILIERE PHOTOVOLTAIQUE / SOLAR ENERGY / INSTALLATION / SOLAR POWER PLANT / ORBITING POWER STATION / DESIGN / UNITED STATES
CONCEPTION D'UNE CENTRALE SOLAIRE ORBITALE CONSTITUEE D'ELEMENTS FLEXIBLES STABILISES ET UTILISANT LE SYSTEME LITOMIC DE CONVERSION DIRECTE DE LA LUMIERE EN MICROONDES.

Format 5 : Title + Bibliographic reference + classification code

78-7-0269652 PASCAL 78326733
PHOTOVOLTAIC, GRAVITATIONALLY STABILIZED, SOLID-STATE SATELLITE SOLAR POWER STATION.
CANTAFIO (L. J.); CHOBOTOV (V. A.); WOLFE (M. G.)
AFF: AEROSPACE CORP., EL SEGUNDO, CALIF.
J. ENERGY; U.S.A.; Date: 1977; Vol: 1; No: 6; p.: 352-363; 32 REF.
; Cote: 17419; Langue: Anglais Type: TP, LA
CC: 730.C.02

Format 6 : Title

78-7-0269652 PASCAL 78326733
PHOTOVOLTAIC, GRAVITATIONALLY STABILIZED, SOLID-STATE SATELLITE SOLAR POWER STATION.

Annex 3

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main language codes

Languages	Codes	
	Numeric	Alphabetic
Chinese	10	CHI
Danish	15	DAN
Dutch	07	DUT
English	02	ENG
French	01	FRE
German	03	GER
Italian	06	ITA
Japanese	09	JAP
Norvegian	13	NOR
Polish	12	POL
Portuguese	08	POR
Rumanian	11	RUM
Russian	04	RUS
Swedish	14	SWE
Spanish	05	SPA

Annex 4

Lexicons and thesauri available from INFORMASCIENCE

Thesauri

Biomedical engineering	(1974)
Geophysics	(1972)
Earth sciences	(1975)
Polymers	(1977)
Computer sciences	(1976)
Information sciences	(1977)
Chemical engineering	(1977)

Lexicons

Information science	(english - french)
Agriculture	
Earth sciences	(english - french)
Physics	
Life sciences	
Chemistry	
Energy	(english - french)
Metallurgy	
Engineering sciences	

END

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